The History of Enzyme Therapy

Even in the early days of human civilization, we have used Enzymes without knowing of their incredibly potential in e.g beer and wine making, in the 21st century we very consciously and efficiently try to use the vast potency of Enzymes.

Tracing the use of Enzyme back to the Bible, the 2nd Book of Kings states the healing of the cancer stricken King Hiskia through fig bandaging.

French natural scientist Rene Reamur (1683 - 1757) proved, with the help of Italien priest Lazzaro Spallanzani that a predatory bird's food is not - as previously believed - mechanically ground in the stomach, but is decomposed through a substance in gastric juice. A perforated metal capsule with meat content was fed to the predatory bird. As the bird regurgitated the capsule, it was empty. In a subsequent experiment a sponge was added to the metal capsule to extract the bird's gastric juice. The gastric juice was trickled onto meat and this decomposed.

In 1836, German scientist Theodor Schwann named the substance in gastric juice that quite strongly decomposed and dissolved protein "pepsin". In 1837, swedish chemist Jöns Jacob Berzelius made the first theoretical deliberations that this substance and/or substances are biocatalysts - metabolic catalysts.

Jean Senebier (1742 - 1809) spread animal gastric juice on the poorly healing wounds and open leg ulcers of his patients and achieved success with this approach - the proliferating tissue was dissolved and the healing process could start.

Louis Pasteur differentiated biocatalysts in thos acting whiing the cell and those acting outside the cell. In 1878, Willy Kühne named the biocatalysts acting outside the cell "enzymes". The confusion regarding the name "ferments"/"enzymes" was officially ended 1897, and since then all biocatalysts have been referred to as "enzymes"!

Around 1900, Scottish physician John Beard had successes in the treatment of cancer patients by applying aqueous extract from the fresh pancreas of piglets and lambs. Colleagues repeated this with prepared pancreas extracts and could not prove any effect. Therapy with enzymes was consequently forgotten. At that time it was not yet known that enzymes stored over a longer period lose their activity. Enzyme therapy was only rediscovered around 1930 by scientists Ernst Freund and Gisa Kaminer in Vienna. They observed how cancer cells kept in vitro (in a test tube) are dissolved it the serum of cancer patients is oncocytolytically inactive. The so-called "Freund-Kaminer reaction" ensues: the observed process is attributable to an inhibitor in the blood of cancer patients or respectively to a substance in the blood of healthy persons (so-called "normal substance") which dissolved the inhibitor.

Prof. Max Wolf was an universal genius. Born in 1885 in Vienna, he initially studied structural and civil engineering after graduation from secondary school. He became an engineer and made many technical inventions (e.g. a patent for a technical system to

automatically stop misrouted trains). As this became too boring for him, he discovered his talent for painting and became court painter for Emperor Franz Joseph of Austria. He was in New York at the time of the outbreak of the First World War and started his medical studies there. Soon he became a professor of medicine at Fordham University in New York and acquired a total of 7 different doctoral degrees in his life. He initially practiced as a gynecologist and ENT specialist, wrote the first textbook on endocrinology and dealt with applied genetics afterwards. Around 1930 he restricted his wide-ranging interest and concentrated merely on enzyme research because he became aware of the key role and enormous possibilities of enzymes. He established contact with Freund and Kaminer in Vienna, and after Freund's death he continued research on this "normal substance" discovered by Freund. Wolf soon determined that the inhibitors in the blood of cancer patients are eliminated through small quantities of chymotrypsin or plasmin. Soon he correctly concluded that this "normal substance" involved enzymes: - certain proteolytic enzymes (hydrolases) in the serum of healthy persons are involved in the selective destruction of malignant cells. He was also able to treat other health disorders with the aid of hydrolases. He was able to treat other health disorders with the aid of hydrolases. He established, along with his employee, cell culture technician Helen Benitez, the Biological Research Institute in New York. The suitable mixture of hydrolases, the so-called "Wolf-Benitez enzyme misture" "WOBE enzymes" - could be found after laborious research. Among the patients who Wolf treated with enzymes were Marilyn Monroe, Charlie Chaplin, Marlene Dietrich, Pablo Picasso, the Kennedys and many others. Professor Max Wolf handed over his scientific legacy to Karl Ransberger.

The Biologist Karl Ransberger, was working with Professor Helmuth Haubold (Physician) in Munich on Vitamin research and investigated the connection between Vitamin A deficiency and certain illnesses. He initially collaborated on projects at the Biological Research Institute in NY and established with Prof Max Wolf the "Medizinische Enzymforschungsgesellschaft" (Medical Enzyme Research Institute) in Munich - which is now lead by Dr. Hellmut Münch. Karl Ransberger set further milestones with the Establishment of Mucos Pharma in Geretsried and the development of Phlogenzyme, Dr. Hellmut Münch, as a young student was at that time already involved in the development of this product. In 2001 Karl Ransberger transferred the leadership of MEF to Dr. Hellmut Münch.

In 2005 Dr. Hellmut Münch developed the product INNOVAZYM.

Source: MEF (Medizinische Enzymforschungsgesellschaft/ Europe)